

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/001,245C

Source: 1FW16

Date Processed by STIC: 7/12/05

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 07/12/2005

PATENT APPLICATION: US/10/001,245C

TIME: 09:04:27

Input Set : A:\SequenceListing.TXT

Output Set: N:\CRF4\07122005\J001245C.raw

3 <110> APPLICANT: HOLM, Jens
 4 IPSEN, Henrik
 5 LARSEN, Jorgen N.
 6 SPANGFORT, Michael D.
 8 <120> TITLE OF INVENTION: Novel mutant allergens
 10 <130> FILE REFERENCE: 4305/1H942-US2
 12 <140> CURRENT APPLICATION NUMBER: US 10/001,245C
 13 <141> CURRENT FILING DATE: 2001-11-15
 15 <150> PRIOR APPLICATION NUMBER: US 60/298,170
 16 <151> PRIOR FILING DATE: 2001-06-14
 18 <150> PRIOR APPLICATION NUMBER: US 60/249,361
 19 <151> PRIOR FILING DATE: 2000-11-16
 21 <160> NUMBER OF SEQ ID NOS: 217
 23 <170> SOFTWARE: PatentIn version 3.1
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 160
 27 <212> TYPE: PRT
 28 <213> ORGANISM: Betula verrucosa
 30 <220> FEATURE:
 31 <221> NAME/KEY: mutation
 32 <222> LOCATION: (28)..(28)
 34 <220> FEATURE:
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 36 <222> LOCATION: (32)..(32)
 38 <220> FEATURE:
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 42 <220> FEATURE:
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 44 <222> LOCATION: (103)..(103)
 46 <220> FEATURE:
 47 <221> NAME/KEY: mutation
 48 <222> LOCATION: (145)..(145)
 50 <220> FEATURE:
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 52 <222> LOCATION: (156)..(156)
 54 <220> FEATURE:
 55 <221> NAME/KEY: mutation
 56 <222> LOCATION: (160)..(160)
 58 <400> SEQUENCE: 1
 60 Gly Val Phe Asn Tyr Glu Thr Glu Thr Thr Ser Val Ile Pro Ala Ala
 61 1 5 10 15
 64 Arg Leu Phe Lys Ala Phe Ile Leu Asp Gly Asp Thr Leu Phe Pro Gln

P.6

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Input Set : A:\SequenceListing.TXT

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65          20          25          30
68 Val Ala Pro Gln Ala Ile Ser Ser Val Glu Asn Ile Glu Gly Asn Gly
69          35          40          45
72 Gly Pro Gly Thr Ile Lys Lys Ile Ser Phe Pro Glu Gly Leu Pro Phe
73          50          55          60
76 Lys Tyr Val Lys Asp Arg Val Asp Glu Val Asp His Thr Lys Phe Lys
77 65          70          75          80
80 Tyr Asn Tyr Ser Val Ile Glu Gly Gly Pro Ile Gly Asp Thr Leu Glu
81          85          90          95
84 Lys Ile Ser Asn Glu Ile Val Ile Val Ala Thr Pro Asp Gly Gly Ser
85          100          105          110
88 Ile Leu Lys Ile Ser Asn Lys Tyr His Thr Lys Gly Asp His Glu Val
89          115          120          125
92 Lys Ala Glu Gln Val Lys Ala Ser Lys Glu Met Gly Glu Thr Leu Leu
93          130          135          140
96 Glu Ala Val Glu Ser Tyr Leu Leu Ala His Ser His Ala Tyr Asn Asn
97 145          150          155          160
100 <210> SEQ ID NO: 2
101 <211> LENGTH: 159
102 <212> TYPE: PRT
103 <213> ORGANISM: Betula verrucosa
105 <220> FEATURE:
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107 <222> LOCATION: (5)..(5)
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111 <222> LOCATION: (42)..(42)
113 <220> FEATURE:
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117 <220> FEATURE:
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131 <222> LOCATION: (134)..(134)
133 <220> FEATURE:
134 <221> NAME/KEY: mutation
135 <222> LOCATION: (156)..(156)
137 <400> SEQUENCE: 2
139 Gly Val Phe Asn Val Glu Thr Glu Thr Thr Ser Val Ile Pro Ala Ala
140 1          5          10          15
143 Arg Leu Phe Lys Ala Phe Ile Leu Asp Gly Asp Asn Leu Phe Pro Lys

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144          20          25          30
147 Val Ala Pro Gln Ala Ile Ser Ser Val Ser Asn Ile Ser Gly Asn Gly
148          35          40          45
151 Gly Pro Gly Thr Ile Lys Lys Ile Ser Phe Pro Glu Gly Leu Pro Phe
152          50          55          60
155 Lys Tyr Val Lys Asp Arg Val Asp Glu Val Asp His Thr Lys Phe Lys
156 65          70          75          80
159 Tyr Asn Tyr Ser Val Ile Glu Gly Gly Pro Ile Gly Asp Thr Leu Glu
160          85          90          95
163 Lys Ile Ser Asn Glu Ile Val Ile Val Ala Thr Pro Asp Gly Gly Ser
164          100         105         110
167 Ile Leu Lys Ile Ser Asn Lys Tyr His Thr Ile Gly Asp His Glu Val
168          115         120         125
171 Lys Ala Glu Gln Val Glu Ala Ser Lys Glu Met Gly Glu Thr Leu Leu
172          130         135         140
175 Arg Ala Val Glu Ser Tyr Leu Leu Ala His Ser His Ala Tyr Asn
176 145         150         155
179 <210> SEQ ID NO: 3
180 <211> LENGTH: 159
181 <212> TYPE: PRT
182 <213> ORGANISM: Betula verrucosa
184 <220> FEATURE:
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186 <222> LOCATION: (28)..(28)
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190 <222> LOCATION: (32)..(32)
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194 <222> LOCATION: (45)..(45)
196 <220> FEATURE:
197 <221> NAME/KEY: mutation
198 <222> LOCATION: (108)..(108)
200 <400> SEQUENCE: 3
202 Gly Val Phe Asn Tyr Glu Thr Glu Thr Thr Ser Val Ile Pro Ala Ala
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206 Arg Leu Phe Lys Ala Phe Ile Leu Asp Gly Asp Thr Leu Phe Pro Gln
207          20          25          30
210 Val Ala Pro Gln Ala Ile Ser Ser Val Glu Asn Ile Ser Gly Asn Gly
211          35          40          45
214 Gly Pro Gly Thr Ile Lys Lys Ile Ser Phe Pro Glu Gly Leu Pro Phe
215          50          55          60
218 Lys Tyr Val Lys Asp Arg Val Asp Glu Val Asp His Thr Asn Phe Lys
219 65          70          75          80
222 Tyr Asn Tyr Ser Val Ile Glu Gly Gly Pro Ile Gly Asp Thr Leu Glu
223          85          90          95
226 Lys Ile Ser Asn Glu Ile Lys Ile Val Ala Thr Gly Asp Gly Gly Ser
227          100         105         110
230 Ile Leu Lys Ile Ser Asn Lys Tyr His Thr Lys Gly Asp His Glu Val

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231          115          120          125
234 Lys Ala Glu Gln Val Lys Ala Ser Lys Glu Met Gly Glu Thr Leu Leu
235          130          135          140
238 Arg Ala Val Glu Ser Tyr Leu Leu Ala His Ser Asp Ala Tyr Asn
239 145          150          155
242 <210> SEQ ID NO: 4
243 <211> LENGTH: 159
244 <212> TYPE: PRT
245 <213> ORGANISM: Betula verrucosa
247 <220> FEATURE:
248 <221> NAME/KEY: mutation
249 <222> LOCATION: (5)..(5)
251 <220> FEATURE:
252 <221> NAME/KEY: mutation
253 <222> LOCATION: (45)..(45)
255 <220> FEATURE:
256 <221> NAME/KEY: mutation
257 <222> LOCATION: (65)..(65)
259 <220> FEATURE:
260 <221> NAME/KEY: mutation
261 <222> LOCATION: (97)..(97)
263 <220> FEATURE:
264 <221> NAME/KEY: mutation
265 <222> LOCATION: (134)..(134)
267 <400> SEQUENCE: 4
269 Gly Val Phe Asn Val Glu Thr Glu Thr Thr Ser Val Ile Pro Ala Ala
270 1          5          10          15
273 Arg Leu Phe Lys Ala Phe Ile Leu Asp Gly Asp Asn Leu Phe Pro Lys
274          20          25          30
277 Val Ala Pro Gln Ala Ile Ser Ser Val Glu Asn Ile Ser Gly Asn Gly
278          35          40          45
281 Gly Pro Gly Thr Ile Lys Lys Ile Ser Phe Pro Glu Gly Leu Pro Phe
282          50          55          60
285 Asn Tyr Val Lys Asp Arg Val Asp Glu Val Asp His Thr Asn Phe Lys
286 65          70          75          80
289 Tyr Asn Tyr Ser Val Ile Glu Gly Gly Pro Ile Gly Asp Thr Leu Glu
290          85          90          95
293 Ser Ile Ser Asn Glu Ile Lys Ile Val Ala Thr Pro Asp Gly Gly Ser
294          100          105          110
297 Ile Leu Lys Ile Ser Asn Lys Tyr His Thr Lys Gly Asp His Glu Val
298          115          120          125
301 Lys Ala Glu Gln Val Glu Ala Ser Lys Glu Met Gly Glu Thr Leu Leu
302          130          135          140
305 Arg Ala Val Glu Ser Tyr Leu Leu Ala His Ser Asp Ala Tyr Asn
306 145          150          155
309 <210> SEQ ID NO: 5
310 <211> LENGTH: 159
311 <212> TYPE: PRT
312 <213> ORGANISM: Betula verrucosa

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Input Set : A:\SequenceListing.TXT

Output Set: N:\CRF4\07122005\J001245C.raw

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314 <220> FEATURE:
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323 <221> NAME/KEY: mutation
324 <222> LOCATION: (32)..(32)
326 <220> FEATURE:
327 <221> NAME/KEY: mutation
328 <222> LOCATION: (103)..(103)
330 <220> FEATURE:
331 <221> NAME/KEY: mutation
332 <222> LOCATION: (108)..(108)
334 <220> FEATURE:
335 <221> NAME/KEY: mutation
336 <222> LOCATION: (152)..(152)
338 <220> FEATURE:
339 <221> NAME/KEY: mutation
340 <222> LOCATION: (153)..(153)
342 <220> FEATURE:
343 <221> NAME/KEY: mutation
344 <222> LOCATION: (155)..(155)
346 <400> SEQUENCE: 5
348 Gly Val Phe Asn Tyr Glu Thr Glu Thr Thr Ser Val Ile Pro Ala Pro
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352 Arg Leu Phe Lys Ala Phe Ile Leu Asp Gly Asp Thr Leu Phe Pro Gln
353 20 25 30
356 Val Ala Pro Gln Ala Ile Ser Ser Val Glu Asn Ile Glu Gly Asn Gly
357 35 40 45
360 Gly Pro Gly Thr Ile Lys Lys Ile Ser Phe Pro Glu Gly Leu Pro Phe
361 50 55 60
364 Lys Tyr Val Lys Asp Arg Val Asp Glu Val Asp His Thr Asn Phe Lys
365 65 70 75 80
368 Tyr Asn Tyr Ser Val Ile Glu Gly Gly Pro Ile Gly Asp Thr Leu Glu
369 85 90 95
372 Lys Ile Ser Asn Glu Ile Val Ile Val Ala Thr Gly Asp Gly Gly Ser
373 100 105 110
376 Ile Leu Lys Ile Ser Asn Lys Tyr His Thr Lys Gly Asp His Glu Val
377 115 120 125
380 Lys Ala Glu Gln Val Lys Ala Ser Lys Glu Met Gly Glu Thr Leu Leu
381 130 135 140
384 Arg Ala Val Glu Ser Tyr Leu Lys Gly His Pro Asp Ala Tyr Asn
385 145 150 155
388 <210> SEQ ID NO: 6
389 <211> LENGTH: 160
390 <212> TYPE: PRT
391 <213> ORGANISM: Betula verrucosa

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/001,245C

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Input Set : A:\SequenceListing.TXT
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:117; Xaa Pos. 53,54,126,127,199,200
Seq#:118; Xaa Pos. 53,54,126,127,200,201
Seq#:119; Xaa Pos. 53,54,103,126,127,198,199
Seq#:120; Xaa Pos. 52,53,83,122,123,191,192
Seq#:121; Xaa Pos. 30,52,53,122,123,195,196
Seq#:122; Xaa Pos. 49,50,119,120,167,189,190
Seq#:123; Xaa Pos. 45,46,48,75,105,108,109,145,168
Seq#:124; Xaa Pos. 46,47,101,118,124,125,164,165
Seq#:125; Xaa Pos. 9,42,43,98,99,100,101,154,155
Seq#:126; Xaa Pos. 39,42,43,98,99,100,101,153,154
Seq#:214; Xaa Pos. 1,2

VERIFICATION SUMMARY

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Input Set : A:\SequenceListing.TXT

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L:7622 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:117 after pos.:48
M:341 Repeated in SeqNo=117
L:7687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:118 after pos.:48
M:341 Repeated in SeqNo=118
L:7752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119 after pos.:48
M:341 Repeated in SeqNo=119
L:7817 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:48
M:341 Repeated in SeqNo=120
L:7874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:121 after pos.:16
M:341 Repeated in SeqNo=121
L:7947 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122 after pos.:48
M:341 Repeated in SeqNo=122
L:8004 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:123 after pos.:32
M:341 Repeated in SeqNo=123
L:8061 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:124 after pos.:32
M:341 Repeated in SeqNo=124
L:8110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125 after pos.:0
M:341 Repeated in SeqNo=125
L:8171 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126 after pos.:32
M:341 Repeated in SeqNo=126
L:12123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:214 after pos.:0